



DEPARTMENT OF THE NAVY

NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
WASHINGTON, DC 20361-0001

IN REPLY REFER TO
NAVAIRINST 13640.1A
AIR-4171
16 Jan 92

NAVAIR INSTRUCTION 13640.1A

From: Commander, Naval Air Systems Command

Subj: NAVAL AVIATION METROLOGY AND CALIBRATION PROGRAM

Ref: (a) SECNAVINST 3960.6
(b) OPNAVINST 4790.2E
(c) NA 17-35MTL-1
(d) NA 17-35NCA-1
(e) NA 17-35NCE-1
(f) NA 17-35FR-01
(g) NA 17-35FR-02
(h) NA 17-35FR-03
(i) NA 17-35FR-04
(j) OPNAV 43P6A
(k) OPNAVINST 4614.1F
(l) NAVAIRINST 13650.1C
(m) NAVAIRINST 13680.1
(n) NAVAVNLOGCENINST 13640.2 (NOTAL)
(o) MIL-STD-45662A
(p) NAVCOMPT MANUAL
(q) MIL-STD-1839A
(r) DI-QCIC-80278A
(s) NA 17-35TR-4
(t) NAVAIRINST 4130.1B
(u) OPNAVINST 4631.2B
(v) OPNAVINST 4650.11F

Encl: (1) Calibration Scheduling and Processing
(2) Repair Policy
(3) Calibration Standards
(4) Calibration/Measurement Requirements Summary
(5) Calibration Procedures and Technical Data
(6) Personnel and Training Requirements
(7) Calibration Services for Contractors
(8) Calibration Standards Acquisition and Calibration Guidelines
(9) Calibration Standards Excess Equipment Program
(10) Air Shipment of Calibration Standards

1. Purpose. To implement reference (a), establish policy, and assign responsibilities for the naval aviation Metrology and Calibration (METCAL) Program.



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2. Cancellation. This instruction supersedes NAVAIR Instruction 13640.1 of 23 March 1988. Since this is a major revision, changes have not been indicated.

3. Background. Reference (a) provides policy and guidance for the Department of the Navy (DON) METCAL Program. Reference (b) provides policies and procedures for implementation and management of the Naval Aviation Maintenance Program (NAMP) including Support Equipment (SE) calibration requirements, level of support, and procedures for management of calibration and rework at the three levels of maintenance. It also directs the Naval Air Systems Command (NAVAIR) to implement and maintain a complementing METCAL program as part of the NAMP. Reference (c) prescribes the maximum intervals at which specific items and/or generic categories of SE are to be calibrated, identifies procedures approved for use performing SE calibration, and provides other information relating to technical functions within the scope of the METCAL Program. Reference (d) provides a directory of, and points of contact for, Navy Calibration Activities. Reference (e) lists approved calibration standards, authorized alternates/substitutes, and ancillary equipment. References (f) through (i) provide technical requirements for shorebased depot level calibration laboratories, field calibration activities (FCAs), afloat calibration activities, and standards laboratories, respectively. Reference (j) provides policy and procedures for participation in the Metrology Automated System for Uniform Recall and Reporting (MEASURE). Force/Activity designator (F/AD) priority assignment is described in reference (k). Reference (l) establishes the Aircraft Maintenance Material Readiness List Program for inventory management of naval aviation SE. Reference (m) describes the SE Rework Program. Reference (n) provides policy and procedures applicable to the Operation Interlab/Exchange Calibration Standards (OI/ECS) Program. Reference (o) requires contractors to establish a calibration system to control the accuracy of test and measuring equipment. Provisions for charges to contractors receiving calibration services from Navy facilities are contained in volume 3, chapter 5 of reference (p). References (q) and (r) provide standardized requirements for a Calibration/Masurement Requirements Summary (CMRS) in conjunction with end item acquisition. Reference (s) establishes content and format requirements to be followed in the preparation of Instrument Calibration Procedures (ICPs). Reference (t) provides Engineering Change Proposal (ECP) procedures. Reference (u) addresses management of Navy airlift assets. Procedures for submitting area clearance requests in conjunction with overseas travel for on-site calibration are contained in reference (v). Enclosures (1) through (10) provide guidance and/or information on specific elements of the NAVAIR METCAL Program.

4. Scope. This instruction encompasses all areas of naval aviation where SE is used for research, development, design, construction, inspection, test, acceptance, maintenance, production, or operation of weapons system and equipment. Its provisions are applicable to all naval aviation activities and to those activities or agencies requiring and/or providing services under the provisions of the NAVAIR METCAL Program.

5. Policy

a. All SE used for quantitative measurement and/or to provide a reference of known value must be periodically calibrated to be within specified accuracy limits required by supported weapons systems and equipment.

b. Customer activities of NAVAIR calibration facilities, including Naval Sea Systems Command (NAVSEASYS COM) activities receiving support from NAVAIR facilities, will complete form OPNAV 4790/58, Metrology Equipment Recall and Report (METER) Card, per reference (j), for each asset submitted for service or service will be denied.

c. Customer activities desiring to change scheduled service to a Navy standard lab or Navy calibration laboratory must obtain prior approval from the Naval Aviation Depot Operations Center (NAVAVNDEPOTOPSCEN). Changing the scheduled lab to a fleet calibration activity may be approved by the appropriate Support Equipment Controlling Authority (SECA). Detailed policy for scheduling and processing is included in enclosure (1).

d. NAVAIR activities may obtain calibration services from non-NAVAIR calibration facilities, when approved by NAVAVNDEPOTOPSCEN. Every effort will be made to use other Navy calibration facilities (e.g., NAVSEASYS COM, ground Marines, etc.) before using other Department of Defense (DOD) and government facilities. All non-NAVAIR laboratories used must meet the technical requirements of the NAVAIR METCAL Program.

e. Traceability of measurements to the National Institute of Standards and Technology (NIST), the Naval Observatory (for Precise Time/Time Interval) measurements, or known physical constants must be maintained.

f. All equipment requiring calibration will be listed in reference (c).

g. Naval aviation FCAs are authorized to calibrate any Test and Monitoring System (TAMS) within their capability, within the following constraints:

(1) The FCA must have a current edition of the approved calibration procedure listed in reference (c) for the given TAMS assets.

(2) The Model/Part Number and Commercial and Government Entity (CAGE) of the TAMS to be calibrated must exactly match the reference (c) listing.

(3) The specific standards or alternates listed in the approved calibration procedures, or an alternate listed in reference (e), must be used. Substitution of standards may be approved by the SECA after verifying the standards suitability with the cognizant field activity/participating field activity (CFA/PFA). When the CFA/PFA identifies a substitute standard not listed in reference (e), they will notify Naval Warfare Assessment Center (NWAC), who will update reference (e).

(4) All special conditions or facility requirements stipulated in the ICP must be met.

(5) If an indicated calibration phase is not implemented at the FCA, the calibration is to be reported under Phase NAX.

h. NAVAIR FCAs are authorized to repair calibration standards for which Integrated Logistics Support (ILS) (i.e. publications, supply support, etc.) is available, and they have calibration capability.

i. Calibration will be performed at the lowest level of maintenance possessing the required capability.

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j. Calibration will be performed in compliance with the approved procedures issued by reference (c), and at the intervals representing the maximum number of months authorized between calibrations. If procedures are not available, activities with engineering support may use engineering specifications to perform calibrations. The procedures used will be provided to Metrology Automated System For Technical Engineering Reports (MASTER). Specific policy details for calibration procedures and technical data are included in enclosure (5).

k. Only operable TAMS will be inducted for calibration at Navy Standards Laboratories (NSL) and Navy Calibration Laboratories (NCL). Customer activities with inoperable SE and TAMS, normally scheduled for calibration by a NAVAVNDEPOT, will request disposition instructions per reference (m). Amplifying guidance, as well as information regarding inoperable General Purpose Electronic Test Equipment (GPETE) and aviation depot level repairables (AVDLRs) is contained in enclosure (2).

l. Equipment shipped for calibration and return will be properly packaged and clearly marked "FOR CALIBRATION."

m. The average turnaround time (TAT) is established as 14 calendar days at NSLs and NCLs. TAT begins when the calibration activity physically receives the component and signs the shipping document or customer invoice. That date will be entered as the received date in MEASURE. TAT ends when the calibration is completed.

n. A sufficient number of calibration laboratories will be maintained to ensure adequate and timely calibration support for SE. The total number of NAVAIR calibration facilities will be reviewed annually relative to consolidation/expansion opportunities. Utilization of intraservicing, other DOD, and other government agency calibration facilities will be pursued whenever and wherever practical.

o. NAVAIR calibration and repair services will be made available on a not-to-interfere and cost-reimbursable basis to other Navy, DOD, or government agencies and contractors. Specific policy for contractor calibration support is included in enclosure (7).

p. Calibration of Naval Aviation Depot (NAVAVNDEPOT) in-house plant equipment and standards, including calibration of operation interlab (OI) standards, are properly considered indirect expenses and said calibrations are to be charged only as an indirect expense.

q. Requests for establishment of a FCA will be submitted per reference (b).

r. Requests for assignment of laboratory identification codes for administrative use will be limited and approved by the Naval Air Systems Command Headquarters (NAVAIRHQ) Support Systems and Logistics Management Division (AIR-417) on a case-by-case basis. Approved administrative laboratory identification codes will be listed in reference (d) with a status of "administrative".

s. All requirements beyond the capability of a given FCA will be scheduled for calibration via NAVAVNDEPOTOPSCEN.

t. Contractors providing calibration services to NAVAIR activities will comply with provisions of this instruction and implementing guidance of NAVAIR field activities.

u. All activities will adhere to established policy for procurement, management, and distribution for calibration standards. These policies are included in enclosures (3), (8), and (9).

v. All NAVAIR activities will adhere to established training and personnel policies included in enclosure (6).

6. Responsibilities

a. NAVAIRHQ

(1) The Support Systems and Logistics Management Division (AIR-417) is the METCAL Program Manager and will

(a) serve as the Acquisition Manager for initial issue and replacement calibration standards;

(b) establish NAVAIR METCAL Program policies, responsibilities, and guidance for SE calibration, repair, and logistics support;

(c) plan, budget, and administer funds for calibration of naval aviation SE;

(d) manage, fund, and administer the MEASURE Program;

(e) notify Commander, NAVSEASYSKOM of establishment, disestablishment, or major changes to NAVAIR depot level calibration laboratories;

(f) participate with other DON, DOD, and government agencies in achieving maximum laboratory performance efficiency and utilization; and

(g) establish FCAs within the purview of NAVAIR.

(2) The Depot Programs Division (AIR-433) will

(a) implement NAVAIR METCAL Program policies, procedures, and funding practices within NAVAVNDEPOT standards and calibration laboratories;

(b) review annually by May the number of NAVAVNDEPOT laboratories and submit findings to AIR-417; forward recommendations for consolidation and/or establishment/disestablishment of NAVAVNDEPOT laboratories including data concerning facilities, manning, standards, and funding requirements; and

(c) ensure that NAVAVNDEPOTs include the maintenance of in-house assets, both repair and calibration, in the Navy Industrial Fund rate as overhead. This includes NIST services.

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(3) The Aviation Training Systems Program Management Office (PMA205) will evaluate and validate all fleet calibration training requirements, and conduct all necessary liaison with fleet commands and other agencies as necessary to ensure the curricula and scope of the training program fulfills the technical requirements of the calibration program.

(4) Acquisition Managers will support the METCAL Program by budgeting for and funding for the acquisition of calibration standards and ancillary equipment for initial outfitting and site activations. The standards will be identified and validated through an approved Calibration and Measurement Requirements Summary (CMRS), as required to permit intermediate and depot level calibration.

b. NAVAVNDEPOTOPSCEN is the Calibration Program Executor and will

(1) execute the NAVAIR METCAL Program, prepare and issue directives and guidance manuals necessary to implement the program;

(2) develop program budget/Program Objectives Memorandum requirements data and execution plans, and provide effective management of program resources, executing program funding to field activities; control calibration man-hour funds, and provide budget data for NAVAVNDEPOTs;

(3) initiate and implement inter/intraservices support and host/tenant agreements, and determine foreign military sales cost estimates and monitor expenditures;

(4) provide calibration services to the fleet, other funded DOD agencies, and selected DOD contractors through management of designated Navy Calibration Laboratories (NAVCALAB)s;

(5) submit recommendations to NAVAIRHQ (AIR-417) with respect to the establishment/disestablishment of depot level calibration activities or major changes thereto; determine facility requirements and propose improvement projects for NAVCALABs;

(6) review depot level calibration standards requirements and develop priorities with the METCAL Program Manager;

(7) determine manpower and contractual requirements to support the depot level METCAL Program;

(8) develop and issue calibration schedules and procedures in support of aviation vessels/platforms predeployment plans, inter/intraservices support agreements, and NAVAVNDEPOTs/NAVCALABs;

(9) determine and assign geographical area/overall aviation fleet calibration workload based on laboratory capabilities;

(10) ensure logistics analyses of CMRS data is performed for NAVAIRHQ (AIR-417) approval, and direct the development of Calibration Support Plans;

(11) participate in DON and DOD studies directed at achieving maximum laboratory efficiency and effectiveness;

(12) coordinate the calibration engineering support efforts of program engineering support activities to respond to laboratory engineering problem referrals;

(13) ensure developmental metrology engineering support for new weapons systems and calibration standards and investigation of new technologies to identify advanced metrology engineering applications;

(14) manage the Calibration Quality Assurance Program and perform Technical Assistance and Laboratory Operations Reviews (TALORs) of all NAVAIR depot level calibration facilities;

(15) ensure ongoing review of the Metrology Requirements List for purposes of updating equipment and calibration procedure listings;

(16) develop the MEASURE Program and associated METCAL Automated Information Systems, providing guidance and technical support for MEASURE users (i.e., NAVAIRHQ, Space and Naval Warfare Systems Command, NAVSEASYSOM, NAVAVNDEPOTs, NCLs, NSLs, and Aircraft Intermediate Maintenance Department (AIMDs)), serving as MEASURE Telecommunications, Configuration and Security Manager, preparing Life Cycle Management and System Decision Paper documentation, and ensuring compatibility between MEASURE and other Navy maintenance management information systems;

(17) manage the MASTER program for NAVAIRHQ (AIR-417), to include directing, assigning, and prioritizing ICP development, in conjunction with MASTER Program Management;

(18) ensure curriculum development for formal, on-the-job and special training of calibration personnel in principals, techniques, procedures, and related functions as required for NSLs and NCLs;

(19) provide or arrange for such training as requested;

(20) review all depot level training plans as part of TALOR;

(21) coordinate with Naval Aviation Maintenance Training Detachments (NAMTRADETS) and NWAC to ensure the training curriculum meets requirements for new weapons systems;

(22) ensure NWAC coordinates and monitors the technical content of training courses conducted at Lowry AFB and reviews all submitted calibration training curricula;

(23) coordinate procurement of replacement and new acquisition NAVAIR peculiar calibration standards required for training of NAVAIR Calibration Technicians at Lowry AFB; and

(24) provide program manager with quarterly program brief.

c. Type Commanders (TYCOMs)/Aircraft Controlling Custodians function as SECAs per references (b) and (m) and will

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- (1) participate in the NAVAIR METCAL Program per reference (b);
 - (2) issue implementing instructions as necessary to ensure that all SE used in the determination of operability and performance of aircraft and weapons systems is periodically calibrated as required;
 - (3) ensure cognizant activities maintain SE accuracy and reliability by proper control, use, handling, maintenance, and repair of equipment;
 - (4) recommend designation of FCAs to NAVAIRHQ (AIR-417), and identify specific phase package requirements;
 - (5) incorporate FCA METCAL Program conformance requirements into applicable fleet inspections; and
 - (6) ensure that military personnel performing calibrations meet the requirements of enclosure (6).
- d. Administrative Contracting Officers (ACOs) will ensure that all calibratable SE used by contractors for inspection or acceptance of naval aviation material are periodically calibrated as required by pertinent contract specifications.
- e. NWAC, as the lead scientific and technical activity for the Navy METCAL Program, will
- (1) review weapons systems and their associated SE to determine calibration requirements, as requested by NAVAIR;
 - (2) perform technical reviews of test requirement documentation and CMRS data to determine calibration support requirements in support of NAVAIR sponsored programs;
 - (3) prepare and forward to NAVAIRHQ (AIR-417), annual budget estimates to perform assigned functions;
 - (4) assign calibration intervals for SE and calibration standards; maintain continuing analysis and audit of calibration intervals to verify adequacy and adjust intervals when required;
 - (5) provide measurement engineering assistance to the NAVAIR METCAL Program;
 - (6) as requested, provide assistance to the NAVAVNDEPOTOPSCEN during calibration activity inspections and audits;
 - (7) develop as tasked in MASTER, uniform metrology and calibration procedures and documentation. Approve and distribute all calibration procedures;
 - (8) disseminate general calibration information to NAVAIR calibration activities;

(9) maintain and publish reference (c), the METRL, and ensure publication of revisions;

(10) attend designated Intergrated Logistic Support Management Team conferences and CMRS meetings as tasked by NAVAIRHQ (AIR-417) to ensure that all SE requiring calibration is adequately supported;

(11) maintain the Metrology Requirements data base and associated publications;

(12) establish minimum performance parameters for calibration standards for various measurement areas;

(13) prepare procurement specifications and/or packages on calibration standards and procure as requested by NAVAIR. Provide engineering assistance on calibration standards procurements. Develop first article and bid sample test plans for new standards when requested by NAVAIR;

(14) designate approved calibration standards, prepare and maintain publication of authorized calibration standards, suitable substitutes, their measurement and calibration capabilities, and FCA phase packages as reference (e). Coordinate reference (e) publication and distribution for use by NAVAIR activities and by contractors preparing a CMRS;

(15) perform introductory training in support of new standards as tasked by NAVAIR. Coordinate and monitor with NAVAVNDEPOTOPSCEN, the technical content of training courses conducted at Lowery Technical Training Center, to ensure NAVAIR requirements are supported;

(16) provide recommendations concerning NAVAIR calibration facility requirements and when tasked, update and publish appropriate instructions;

(17) review Support Equipment Requirements Data (SERDs) prior to approval to identify calibration requirements;

(18) provide recommendations for minimum calibration standard to test instrument Test Accuracy Ratios; and

(19) technically review all proposed calibration standard ECPs.

f. The NSLs located at NAVAVNDEPOT North Island and NAVAVNDEPOT Norfolk maintain and disseminate the most accurate units of measurement within the Navy METCAL Program, ensure measurement traceability to NIST, and will

(1) assure consistency of those units by disseminating those values to other calibration facilities and other Government customers via direct calibration and incidental repair services, utilization of the Measurement Assurance Programs (MAPs), or other technically acceptable methods;

(2) calibrate and repair as necessary, calibration standards received from NCLs, FCAs, and other government customers as scheduled and/or endorsed by NAVAVNDEPOTOPSCEN;

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(3) provide engineering/technical advisory services to calibration activities;

(4) evaluate the technical advisory services to calibration facilities via the MAP. Provide analysis of the results to NAVAVNDEPOTOPSCEN;

(5) execute the OI per reference (n), making recommendations to NAVAVNDEPOTOPSCEN for additions/deletions;

(6) participate in the MASTER program, and develop ICPs as required per enclosure (5); and

(7) assist NAVAVNDEPOTOPSCEN during laboratory inspections and audits as requested.

g. The NSL located at NAVAVNDEPOT North Island is designated as the Navy Primary Standards Lab (NPSL) and will:

(1) Serve as the CFA for calibration standards and

(a) coordinate the efforts of the PFA, (NSL Norfolk);

(b) perform logistics management functions for calibration standards that have reached the stable operations phase of their life cycle;

(c) provide in-service engineering services for calibration standards;

(d) submit ECPs to NAVAIRHQ (AIR-417) per reference (t);

(e) provide technical assistance for procurement efforts;

(f) conduct technical reviews of manuals and changes thereto; and

(g) act as custodian for the Excess Equipment Retirement Program per enclosure (9).

(2) Assist NAVAIRHQ/NAVAVNDEPOTOPSCEN, when directed to

(a) perform on-site evaluation of NAVAIR calibration laboratory plant facilities for conformance to technical requirements of reference (g);

(b) perform laboratory capability and Calibration Support Plan analysis;

(c) assist activities with development of required Military Construction or special projects requests to satisfy needs. Propose facilities improvements and priorities to the Program Executor;

(d) review NWAC inputs to technical facility requirements for inclusion in references (f) through (i); and

(e) perform standards acquisition technical review and analysis, and procure calibration equipment.

(3) Establish procedures for and manage the Navy MAP, Correlation Programs, and OI Program.

(4) Coordinate all interface with NIST, including correlations, Research and Development (R&D), and workload scheduling.

(5) Serve as the NAVAIR METCAL Steering Committee Representative.

(6) Coordinate all engineering interface with NWAC.

(7) Coordinate all interface with the Army and Air Force Primary Labs.

(8) Determine requirements for Repository Funding.

(9) Provide representative to the Joint Logistics Commanders.

h. NCLs furnish services to assigned geographical areas within the Navy METCAL Program. Mobile Calibration Complexes operated by the Marine Corps are equivalent to NCLs. NCLs obtain services from the Navy Standards Laboratories and will

(1) calibrate and repair as necessary, calibration standards and SE received from FCAs;

(2) provide calibration services to other DON and DOD activities and government contractors on a reimbursable basis per reference (p);

(3) provide on-site calibration services as directed by NAVAVNDEPOTOPSCEN; and

(4) provide necessary measurement engineering support to FCAs.

i. NSLs/NCLs will

(1) develop and follow a plan for the training of all assigned calibration technical personnel; and

(2) utilize available training resources to achieve realistic milestones and objectives established within the training plan.

j. The Naval Air Warfare Center Aircraft Division provides technical support to NAVAIR by performing technical evaluation of calibration hardware and software during the pre-deployment phase, development and construction of standards and ancillary equipment, preparation of calibration standards SERDs, preparation of ICPs, enhanced metrology research, and serves as the MASTER Program Administration and Control Center.

k. The Naval Air Warfare Center Aircraft Division Lakehurst (NAVAIRWARCENACDIVLKE) will execute for NAVAIR, the procurement of calibration standards, coordination of the development of standards procurement packages, preparation of SERD, management of acceptance testing, and maintenance of the Standards Acquisition Tracking System (STATS).

l. NAVAVNDEPOTs will provide formal FCA level calibration training as directed by NAVAVNDEPOTOPSCEN.

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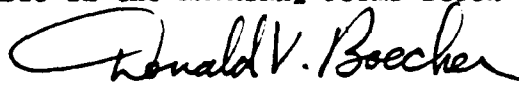
m. FCAs furnish measurement services to the operating forces and will, as authorized, perform calibration and necessary repair on SE and designated calibration standards.

7. Reports. The Material Inspection and Receiving Report and Metrology Equipment Recall and Report (OPNAV 4790/58) required by reference (a) and this instruction are exempt from reports control by SECNAV Instruction 5214.2B and requires no report symbol.

8. Forms

a. Field Activities. Forms DD 250, Material Inspection and Receiving Report, stock number 0102-LF-009-9200, DD 1423, Contract Data Requirement List, stock number 0102-LF-010-5400, and NAVAIR 4790/3, Maintenance Requirement Cards, stock number 0102-LF-604-7915 are available in the Navy supply system and may be requisitioned per NAVSUP P-2002D. Form OPNAV 4790/58, Metrology Equipment Recall and Report, is provided by automatic distribution to MEASURE participants by MEASURE Operational Control Center, Norfolk and San Diego.

b. NAVAIRHQ. Form DD 1423 is available in the NAVAIRHQ Forms Stock Room for headquarters use only.



DONALD V. BOECKER
Vice Commander

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CALIBRATION SCHEDULING AND PROCESSING

1. MEASURE Format 800 series identifies SE/TAMS/standards, authorized for induction at the indicated scheduled laboratory for the ensuing 3 months. Equipment listed will be delivered to the scheduled laboratory only, deployed activities excluded. Substitution of TAMS not appearing on the Format 800 series, for items that do appear therein, may be made to the extent that they do not exceed quarterly manhour allocations. Changes in scheduled laboratories above the FCA level require prior approval by NAVAVNDEPOTOPSCEN. Customers requiring such changes must submit requests with justification via naval message, NAVGRAM, or letter.

2. SE, TAMS, and calibration standards not reflected in MEASURE may be delivered by customer of Mediterranean and WESTPAC area laboratories without prior authorization, if accompanied by a completed METER Card indicating "add-to-inventory" per reference (j). On-site schedule changes must be coordinated with scheduled NAVAIR laboratory managers prior to team departure, and allow for sufficient time to develop a travel itinerary.

3. Non-NAVAIR customers aboard NAVAIR shore activities frequently receive calibration support from the AIMD FCA. Non-NAVAIR customer equipment beyond the FCA capability may be scheduled to a higher echelon NAVAIR laboratory contingent upon prior customer/parent command funding and NAVAVNDEPOTOPSCEN authorization.

4. NAVAVNDEPOTOPSCEN will

a. schedule, or arrange for scheduling of, in service SE and calibration standards requiring calibration at cognizant depot level calibration laboratories, including on-site calibration services provided by those laboratories;

b. utilize the F/AD priority system as delineated by reference (k). Regardless of F/AD priority, however, FCA standards will receive first priority for calibration;

c. review and approve calibration service requests from deployable activities supported by other commands, e.g., NAVSEASYSKOM, which may be scheduled into NAVAIR laboratories;

d. provide, via naval message, the quarterly labor hour allocations, based on MEASURE Format 800 projections, for each customer activity supported by an NSL or NCL; and

e. provide guidance to NAVAVNDEPOT calibration laboratories upon being advised that manhours expended have reached 80 percent of the quarterly allocation.

5. Mediterranean and WESTPAC area coordinators will advise aviation platforms of SE and TAMS within the capability of laboratories under their cognizance.

6. NSLs and NCLs will

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a. ensure that all in-house calibratable SE, TAMS and standards are reflected in MEASURE per reference (j);

b. advise customer activities, with copy to NAVAVNDEPOTOPSCEN and the cognizant SECA, upon receipt of equipment in the following categories:

(1) Damaged in shipment.

(2) Inoperable/incomplete or not accompanied by necessary publications, charts or technical data when required.

c. advise customers, via naval message, of those standards and SE/TAMS that cannot be calibrated or returned within a 14 day TAT as defined herein. The message will info NAVAVNDEPOTOPSCEN and the cognizant SECA, and must include the reason for delay of return, e.g., lack of adequate technical data, calibration procedure, laboratory equipment, spare parts, and/or assignment of higher priority workload which will preclude completion per established TAT goals;

d. thirty days prior to scheduled arrival for on-site calibration at overseas locations, forward area clearance requests to the customer activity per reference (v), with information copy to the SECA and NAVAVNDEPOTOPSCEN. Emergency visits must contain complete justification to support a waiver of the 30 day advance notice requirement;

e. ensure that on-site calibration team leaders check in with FCA personnel prior to, and upon completion of, on-site calibration service;

f. forward annual budget requirements and management reports to NAVAVNDEPOTOPSCEN;

g. notify customers, SECA, and NAVAVNDEPOTOPSCEN, within 5 working days of receipt, of a customer laboratory standard that is beyond the receiving laboratory capability;

h. notify customers, the appropriate SECA, and NAVAVNDEPOTOPSCEN of any customer laboratory standard that is awaiting parts or technical data for more than 30 calendar days; and

i. notify NAVAVNDEPOTOPSCEN via message when 80 percent of the quarterly allocation of calibration manhours has been expended.

7. NCL Capodichino, Rota, and Sigonella will provide personnel and standards augmentation as necessary in support of on-site calibration team visits.

8. FCAs will

a. regularly review new workload to ensure that items within local capability are not scheduled for calibration at an NSL or NCL;

b. ensure that only operable TAMS are submitted upline for calibration;

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c. request scheduling direction from NAVAVNDEPOTOPSCEN for items beyond local capability; and

d. manage labor hours assigned to activities under their cognizance.

9. MEASURE Operations Control Centers (MOCCs) will update customer inventories and process all METER Cards while customers and subcustodians are deployed.

10. SECAs will

a. manage and administer the labor hour allocations provided by NAVAVNDEPOTOPSCEN for activities under their cognizance; and

b. provide customer deployment schedules to NAVAVNDEPOTOPSCEN to permit coordination of calibration support during deployment periods.

11. Customer Activities will

a. submit SE, TAMS, and standards to the scheduled laboratory accompanied by the following:

(1) Equipment accessories, charts or peculiar technical data required for calibration, as requested by the laboratory.

(2) A form OPNAV 4790/58 for each item preprinted or handscribed as outlined in reference (j).

(3) A form OPNAV 4790/58 for each add-to-inventory item, properly completed per reference (j), and authorized by NAVAVNDEPOTOPSCEN.

b. provide notification, via letter, NAVGRAM, or naval message to the cognizant MOCC advising of impending deployment as follows:

(1) Advise the MOCC approximately 45 days prior to deployments of 3 months or longer.

(2) In the event of "short fuse" deployment, provide notification as soon as practical.

(3) In either of the preceding scenarios, include MEASURE customer code, subcustodian code, deployment address, and effective date for flagging of MEASURE products.

(4) Upon completion of deployment, notify the MOCC of return and request deflagging of MEASURE products.

12. Afloat customers will request appropriate short cycle calibration of SE and TAMS while in port, in order to minimize costly travel by on-site calibration team.

Encl (1)

REPAIR POLICY

1. Non-Industrial Funded NCLs

a. Operable NAVAIR fleet TAMS, excluding GPETE, and AVDLRs, submitted to NAVAIR non-NAVAVNDEPOT calibration laboratories for routine calibration, which require concurrent repair, will be restored to an "In Tolerance/Ready for Use" (RFU) condition, provided the entire process can be completed within time and funding constraints.

b. Operable GPETE (7Z) and AVDLRs (7R) Cog items, inducted for routine calibration requiring incidental repair will be processed under calibration funding. If the item requires more than incidental repair, it will be returned to the customer activity and replaced through established supply procedures.

c. Inoperable NAVAIR Fleet TAMS, including GPETE and AVDLRs, may be submitted to NAVAIR non-NAVAVNDEPOT calibration laboratories specifically for repair only under the following conditions:

(1) Where there is insufficient test equipment to perform mission functions and no workaround or temporary fix is available.

(2) The inoperable TAMS is accompanied by a memo from the cognizant AIMD Officer certifying there is insufficient test equipment to perform mission functions, or a "Broadarrow" message that info's the servicing NCL.

(3) Submission of inoperable NAVAIR fleet TAMS without the required AIMD Officer certification will result in release of a message from the cognizant laboratory to NAVAVNDEPOTOPSCEN and cognizant SECA, with information copies to the submitting activity, identifying the TAMS in question and requesting disposition instructions. Such inoperable TAMS will be held by the receiving laboratory until disposition instructions are provided by the submitting activity or cognizant SECA.

d. Inoperable NAVAIR fleet calibration standards will be repaired by all laboratories under the METCAL Program where economical, and capability exists. Both calibration and repair of approved fleet calibration standards are a proper charge to calibration program funding.

e. TAMS received for calibration and standards received for calibration/repair which are deemed "beyond economical repair" (BER) or beyond lab capability will be identified to NAVAVNDEPOTOPSCEN via action message, with info to submitting activities, and cognizant SECA. Assets will be held pending disposition instructions. Only RFU assets will be returned to customers unless specifically requested by the customer or SECA.

f. Inoperable 7R and 7Z Cog items that do not fall under paragraph 1c above will be returned to the customer activity for repair or replacement through normal supply procedures.

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2. NAVAVNDEPOTS

a. Operable fleet TAMS received at NAVAVNDEPOT calibration facilities, which exceed incidental repair criteria (59 minutes of rework time) should be converted to SE rework funding for additional repair efforts required.

(1) Technician efforts to repair assets should continue throughout this funding conversion process to maintain minimum turn around time.

(2) SE charges for 6R/2V Cog items are applicable to Level of Effort (LOE) funding and do not require assignment of SE Control Numbers. Activities with established "one stop" repair budget lines should continue to transfer funding from LOE allocations to support "one stop efforts."

b. Operable GPETE (7Z) and AVDLR's (7R) Cog items, inducted for routine calibration requiring incidental repair, will be processed under calibration funding. If the item requires more than incidental repair, it will be returned to customer activity, and replaced through established supply procedures.

c. Calibration and repair of assets identified as fleet calibration standards are a proper charge to calibration program funding and do not require any program conversion. Calibration standards will not be returned to customers until they are ready for use.

d. Inoperable fleet TAMS received for calibration will require an action message be sent to the SECA, with info to customer activity, identifying SE rework requirement, and requesting disposition instructions. SE repair requests will be submitted per reference (n).

e. Inoperable GPETE (7Z) and AVDLRs (7R) will be returned to the customer activity for replacement through normal supply procedures.

f. TAMS/standards determined to be beyond economical repair or beyond lab capability, should be identified via naval message to NAVAVNDEPOTOPSCEN (Code 430) with an info copy to the customer activity and SECA, and held pending disposition instructions.

NOTE: All assets returned to customers will have specific reason for return annotated on the remarks column of the METER card, and on the rejection sticker.

Encl (2)

CALIBRATION STANDARDS

1. Calibration standards will be procured and tested following the procedures established in enclosure (8).
2. Where feasible, FCA standards pools will be established to provide for exchange of critical FCA standards upon failure or interval expiration. Requests for pool establishment will be submitted to NAVAIRHQ (AIR-417) for approval. SECAs are responsible for composition of pools and will provide standards either through existing assets or will identify requirements for the next fiscal year procurement. Each pool will be assigned an administrative laboratory identification code.
3. Requests for emergency replacement of NSL or NCL calibration standards should be addressed to NAVAVNDEPOTOPSCEN (Code 430), with information copies to NAVAVNDEPOT North Island (Code 06), NAVAIRWARCENACDIVLKE (Code 52524), and NAVAIRHQ (Code 4171).
4. The OI Program provides for the exchange of calibration standards between NSLs and NCL laboratories to minimize loss of capability when critical standards are being calibrated at the NSL. Details are provided in reference (n). Standards are candidates for support under the OI Programs when the following criteria are met:
 - a. Standard requires support by a standards laboratory.
 - b. Workload dictates that at least one of a given standard be resident in the customer laboratory at all times.
 - c. Packaging, handling, and transportation will not invalidate the calibration of the standard.
5. FCAs may repair all calibration standards for which ILS (i.e. pubs, supply support) is available, and for which they have calibration capability. Calibration standards requiring depot level repair will be scheduled by NAVAVNDEPOTOPSCEN.
6. FCA aircraft support phase calibration standards packages will include all standards necessary to calibrate all authorized SE for a given phase. However, in order to avoid redundant procurement, a specific standard will not be provided if a suitable asset is on hand in another standards package, unless anticipated total workload dictates an additional asset.
7. Per reference (1), FCA calibration standards will appear in the Support Equipment Resources Management Information System source data with the characters "-CS" as a suffix to the part number, and reside within the CS list code. FCA standards will be assigned a Navy Inventory Control Number in lieu of a National Stock Number, and be assigned Source, Maintenance and Recoverability Codes.

8. Standards warehouses will be established as necessary to function as trans-shipment points for FCA standards. Standards held in such warehouses must be destined for a specific FCA to fill a deficiency or to replace obsolete calibration standards. An administrative laboratory identification code will be assigned to such warehouses to provide visibility in MEASURE inventory data.

9. NAVAIRHQ (AIR-417) will

a. function as the Acquisition Manager for calibration standards and budget and fund for the replacement of out-of-production calibration standards and ancillary equipment; and

b. approve all calibration standard procurements.

10. NAVAVNDEPOTOPSCEN acts as Deputy Acquisition Manager for all depot level calibration standards and will

a. review requirements for calibration standards submitted by NAVAIR depot level calibration facilities and determine technical adequacy of equipment requested, recommending actual items to be procured;

b. manage the NSL and NCL standards inventories and ensure their validity; and

c. develop and prioritize depot level standards and ancillary equipment requirements for new weapons systems and components with the NAVAIR METCAL Program Manager.

11. NAVAIRWARCENACDIVLKE will execute the procurement of all calibration standards and

a. coordinate the development of procurement packages for standards acquisitions;

b. prepare SERDS on all calibration standards procured. SERDS must be reviewed by NWAC prior to entry into Automated Support Equipment Recommendation Data; and

c. maintain STATS.

12. NAVAIRWARCENACDIV is responsible for providing technical support to NAVAIR and, as directed, will

a. perform technical evaluation of hardware and software for SE calibration support during the pre-deployment phase;

b. where suitable commercial equipment is not available, develop and construct (or arrange for development and construction of) calibration standards and ancillary equipment as tasked; and

c. develop ICPs as tasked.

13. NSLs and NCLs will

- a. submit calibration standards requirements to NAVAVNDEPOTOPSCEN via NPSL not later than 1 November each year;
- b. maintain a complete and current inventory of calibration standards; and
- c. maintain plant account records for all in-house calibrations standards and ancillary equipment.

14. NCLs Rota, SP and Sigonella, IT will maintain pools of critical FCA standards to minimize out-of-service impact on calibration activities in the Mediterranean area.

15. SECAs will

- a. act as deputy acquisition manager for FCA calibration standards;
- b. review Procurement Data Sheets for "I" level calibration standards;
- c. identify and prioritize "I" level calibration standard replacement requirements for FCA and standards pools; and
- d. manage "I" level standards inventories.

16. FCAs will submit calibration standards requirements to the cognizant SECA.

Encl (3)

CALIBRATION/MEASUREMENT REQUIREMENTS SUMMARY

1. As set forth in reference (q), a CMRS is a contractor prepared summary of the technical requirements of a system, subsystem, or equipment outlining measurement parameters, ranges, accuracies, and calibration intervals for each level of measurement. This data provides a keystone for proper selection of test and measuring equipment and calibration related documentation required to support naval aviation SE.

2. To ensure adequate calibration support for each aircraft, weapon system, and associated SE an integrated effort is required, from initial development to fleet initial development to fleet introduction. The functions, responsibilities, and roles of participants are as follows:

a. NAVAIRHQ (AIR-417) will

(1) identify and approve the CMRS requirement to ensure that all SE requiring calibration is adequately supported; and

(2) forward CMRS requirements to appropriate Systems and Engineering (AIR-05) procurement divisions for inclusion in contracts.

b. Program Managers, AIR (PMAs) and Systems and Engineering (AIR-05) procurement divisions will

(1) contractually specify a requirement for CMRS data on form DD 1423, Contract Data Requirements List, per reference (t) for each new/modified aircraft, weapon system, or equipment procured by NAVAIR;

(2) authorize the ACO to fund for CMRS data as specified on approved SERDs; and

(3) budget and fund for the acquisition of calibration standards and ancillary equipment for initial outfitting and site activations, when identified and validated through an approved CMRS, as required to permit intermediate and depot level calibration.

c. NAVAVNDEPOTOPSCEN will manage the development of Calibration Support Plans for new systems and components, pursuant to analysis of SERD and CMRS information.

d. NWAC will, as directed,

(1) attend meetings and logistics support/maintenance planning analysis reviews to provide advice, guidance, and complete action pertaining to calibration support of SE and requirements for CMRS data and calibration procedures;

(2) provide advice, guidance, and direction to contractors relative to CMRS development and SE calibration support policies and decisions. Review test requirements documentation and submit recommendations to NAVAIRHQ (AIR-417) logistic managers for approval;

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(3) review, or arrange for review of SERDs, to ensure CMRS data and ICP authorization for SE requiring calibration. Advise the SE procuring authority, the logistics manager, and NAVAIRWARCENACDIVLKE of required revisions or corrections;

(4) coordinate as required to ensure compatibility of SE ICPs and approved CMRS data; and

(5) provide copies of CMRS data to SECAs for review.

e. SECAs will review CMRS data and provide comments to NWAC.

Encl (4)

CALIBRATION PROCEDURES AND TECHNICAL DATA

1. ICPs provide calibration personnel with standardized steps and operations with which to perform calibrations. Approved ICPs for calibration standards and SE are listed in reference (c) and are generally issued as a NAVAIR 17-20 series technical manual. However, other documents, e.g., Air Force, Army, and NASA calibration procedures, ordnance directives and procedures, and form NAVAIR 4790/3, Maintenance Requirement Cards, may also be listed in reference (c) and used.
2. NAVAIR will ensure the development and availability of ICPs prepared per reference (s).
3. NAVAIRHQ Systems and Engineering (AIR-05) acquisition managers will ensure that acquisition of calibratable SE includes funding for ICP development.
4. Calibration standards acceptance testing will include the verification and/or preparation of a supporting ICP. Calibration standards will not be fielded without an approved ICP.
5. The MASTER Program provides a vehicle for the exchange of metrology data in support of the NAVAIR METCAL Program. Using MASTER, ICPs being prepared or updated at various NAVAIR Procedure Development Centers (PDCs) can be tracked, the database updated on a continuing basis, and reports provided showing procedure preparation or revision status. NAVAVNDEPOTOPSCEN is the MASTER Program Administration and Control Center. Additionally, NAVAIRWARCENACDIV assists in directing, assigning, and prioritizing ICP development.
6. All NAVAIR calibration activities will utilize the ICPs listed in reference (c).
7. The following activities are designated as MASTER PDCs:
 - a. NWAC Corona.
 - b. NAVAIRWARCENACDIV.
 - c. All NAVAVNDEPOTs.
8. PDCs will
 - a. prepare ICPs per reference (s) as directed by NAVAVNDEPOTOPSCEN; and
 - b. utilize reference (e) as the authoritative reference document for the selection of standards during ICP preparation.
9. NWAC will
 - a. preform technical review and approval of test requirements documentation and proposed ICPs;

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b. participate in verification and in-process reviews of contractor prepared calibration related portions of maintenance manuals; and

c. publish approved procedures as NAVAIR 17-20 series publications.

10. All NAVAIR calibration laboratories will provide to the MASTER Program managers at NAVAVNDEPOTOPSCEN, copies of all non-published data under their cognizance which is used in performing calibrations. All such data will be converted as necessary, to NA 17-20 series publication format prior to submission.

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PERSONNEL AND TRAINING REQUIREMENTS

1. To ensure that quality measurements are maintained, civilian personnel assigned to calibration activities will be a graduate of an approved calibration course or training program.
2. Military personnel will, prior to assignment to calibration activities, meet the following criteria:
 - a. Navy - hold Navy Enlisted Classification (NEC) 1588 or 6673.
 - b. Marine Corps - hold Military Occupational Specialty (MOS) 6492.
 - c. Other Navy ratings and/or Marine Corps MOSs may perform pressure and torque calibrations if formally trained via a course identified in the Catalog of Navy Training Courses (CANTRAC).
 - d. ATE that is calibrated at the system interface using automated calibration procedures, may be calibrated by the system maintainer, provided the principles of calibration for that system are included in the maintainer training course.
 - (1) Other ATE, and all embedded and roll-up standards used in the calibration of ATE, will be calibrated by civilian personnel who are graduates of the Air Force Precision Measurement Equipment Technician course, or equivalent, or by military personnel carrying the appropriate NEC or MOS and set forth in reference (b).
3. Authorized calibration courses are
 - a. precision measurement equipment specialist courses provided to the Navy by the U.S. Air Force under terms of an ISSA; and
 - b. Navy calibration courses identified in the CANTRAC.
4. Equivalent courses include
 - a. graduate or associate degrees in appropriate physical sciences or engineering disciplines; and
 - b. satisfactory completion of a 4 year apprentice training program in the field of calibration.

CALIBRATION SERVICES FOR CONTRACTORS

1. Whenever possible, calibration of prime contractor calibration standards and test equipment will be accomplished in commercial laboratories acceptable to the cognizant Contract Administration Office (CAO). Cost of all NAVAIR laboratory calibration service for contractors are reimbursable following the provisions of reference (q), and will be charged to the prime contractor. Calibration services required by subcontractors are the responsibility of the prime contractor, and will be arranged for by the prime contractor. If adequate facilities are not available, calibration services may be obtained from a NAVAIR laboratory as follows:

a. A written request must be initiated by the prime contractor, endorsed by the CAO, and forwarded to NAVAVNDEPOTOPSCEN for approval and scheduling into the appropriate laboratory. This request will include a statement that adequate commercial or non-DOD facilities are not available to support the specific contractor requirements. Such a statement will also be included in the CAO endorsement.

b. Upon receipt of the contractor request, as endorsed by the CAO, NAVAVNDEPOTOPSCEN will select the laboratory to provide the service, based on priority of requirements, workload capacity, location, and capability as determined by personnel, calibration standards, and level of accuracy.

c. NAVAIR laboratories performing contractor calibration services will ensure that each such request for calibration has been approved by NAVAVNDEPOTOPSCEN prior to providing the service. Approval is terminated upon completion of each response to an individual contractor request.

d. Prior to onset of actual work, the laboratory will verify receipt of the appropriate funding for the calibration service.

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CALIBRATION STANDARDS ACQUISITION AND CALIBRATION GUIDELINES

1. Purpose. This enclosure establishes policy and standard operating procedures for acquiring and calibrating standards for the naval aviation METCAL Program.

2. Background. The APN budget for calibration standards is used to procure equipment required to support the mission of the naval aviation METCAL Program.

a. The calibration standards APN-7 budget is used to support the following requirements:

(1) Replace existing calibration equipment due to attrition.

(a) For replacement of calibration equipment that is obsolete or BER.

(b) To support the NAVAIR measurement repository maintained at the Navy Primary Standards Laboratory.

(c) To calibrate SE used in support of weapon systems that are no longer managed by a NAVAIR program manager.

(d) For accessories and ancillary equipment in direct support of calibration standards.

(2) Improve the efficiency, effectiveness, and capability of the calibration laboratory network.

(3) Support and maintain the Navy's measurement repository.

(4) Provide services required to:

(a) Determine and verify requirements and specifications.

(b) Procure the prioritized/verified equipment subject to budget limitations.

(5) Provide ILS to support the initial acquisition of calibration standards.

b. APN-1-4 funds, as appropriate, are used to support aircraft with an active PMA. In the case of new construction or site activations where more than one aircraft is involved, each aircraft PMA will fund a fair share based on the level of anticipated workload.

3. PULL Requirements

a. In order to meet FY procurement requirements, the SECAs/NAVAVNDEPOTOPSCEN will request the acquisition of calibration standards using the following schedule:

(1) NPSL (Code 065) will request new requirements from depot labs no later than 1 August for the following FY requirements. Labs will respond no later than 1 October.

(2) NPSL (Code 065) will provide non-Navy Calibration Equipment list to NWAC no later than 15 January.

(3) SECAs/NAVAVNDEPOTOPSCEN will submit requests for routine procurement to NAVAIR (AIR-417) and NAVAIRWARCENACDIVLKE (Code 5237) no later than 31 January for procurement beginning 1 October of the same calendar year. Requests will be submitted by the SECAs/NAVAVNDEPOTOPSCEN directly into the STATS SECA/depot yearly APN-7 submission menu. The Justification Codes are defined in paragraph 10 of this enclosure. NAVAIRWARCENACDIVLKE/NPSL/NWAC will complete preliminary review of SECA/depot inputs no later than 15 February.

(4) No later than 1 March, NAVAIRWARCENACDIVLKE (Code 5237) will chair a preliminary technical review meeting at NWAC to review requests for replacement of depot calibration standards. Representatives from NAVAIRWARCENACDIVLKE, NAVAVNDEPOTOPSCEN, NPSL, and NWAC will review the items. The SECAs will participate in a separate review meeting for FCA Standards with NAVAIRWARCENACDIVLKE, NPSL, and NWAC. The purpose of each review is to ensure that the recommended calibration standards meet technical requirements and support the program's mission. The technical review committee will also ensure that equipment standardization and other methods to minimize acquisition and ILS costs are used to maximize program effectiveness and to ensure traceability requirements can be maintained.

(5) All equipment will be reviewed at the preliminary technical review meeting, whether listed in the NCE or not. Equipment not listed in the NCE must be accompanied by detailed justifications, including requirements and why those requirements cannot be filled by NCE equipment or the request will be cancelled. Equipment requested that is already listed in the NCE will be reviewed to determine if there is any reason to initiate major reprocurement of the item or recommend alternate items. NPSL will submit a scrubbed list of depot requirements to NAVAVNDEPOTOPSCEN no later than 20 March.

(6) The final review of equipment will be completed by NAVAVNDEPOTOPSCEN, and SECAs no later than 1 May for entry into the Standards Acquisition Tracking System (STATS) APN-7 SECA/Depot Submission screen.

(7) NAVAIRWARCENACDIVLKE, no later than 30 June will submit the final fiscal year buy list to each designated procuring activity to initiate the procurement process.

(8) Equipment requested with Justification Code 4 or 5 will be segregated by NAVAIRWARCENACDIVLKE from the main APN-7 requirements list and submitted to the appropriate NAVAIRHQ (AIR-417) Logistics Manager for further submission to the PMA for funding.

(9) Requests for equipment supporting a weapon system with an active Calibration Support Plan (CSP) will be referred to NWAC or NAVAIRWARCENACDIVLKE as directed by NAVAIRHQ (AIR-417) for possible incorporation in the aircraft CSP.

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Only equipment listed in the CSP will be procured to support the weapon system. All other requests will be cancelled if NAWC elects not to include them in the NCE.

(10) Requests for equipment that represent a requirement that will be fulfilled by a "PUSH" procurement will be referred to the requesting activity to confirm that the urgency of the request does not allow waiting for the PUSH acquisition.

b. When calibration standards are included in the activity Individual Material Readiness List, the requirements identification process will be handled in a similar manner to SE currently in SERMIS. NAVAIRHQ (AIR-417) will develop an appropriate allowancing document for NCLs.

c. Equipment that is consumable and non-calibratable, that costs less than \$500 will be funded by individual activities. Exceptions will be made for initial site activations and Test Fixtures.

4. PUSH Requirements

a. NAVAIR will initiate major acquisitions to achieve fleet-wide replacement of obsolete calibration equipment; implement a new technology or capability; or take advantage of the economics for a large volume acquisition. A major acquisition for the METCAL program is defined as one with an estimated contract award value over \$100,000.

b. PUSH requirements origination:

(1) Recommendations for major acquisitions will be directed to NAVAIR and NWAC via the requesting activity chain of-command. Recommendations may also be surfaced during the METCAL Steering Committee meetings.

(2) NWAC when directed by NAVAIRHQ (AIR-417) is responsible for the initial calibration requirements analysis of the recommendation. After the initial analysis, the recommendation will be formatted in PROJECT DATA SHEET FORMAT (see attachment A), with funding and product sections left blank. At the annual METCAL Calibration Requirements and Technical Review, held each May at NWAC, new Project Data Sheets will be reviewed and prioritized. Within 60 days, NWAC will provide NAVAIR with a list of projects already in work followed by the prioritized list of new projects, along with the respective Project Data Sheets with all sections completed. NAVAIR will fund as many projects as available funding allows. Once NAVAIR agrees to fund a new project, the following will occur:

(a) The project will be assigned a three-part identifying number. Part one will be the first year the project is funded (i.e. 90). The second part is a six digit NWAC identifier. The third part will initially be the letter "A" (i.e. 90-XX-XXXXA).

(b) Once a project is funded, NWAC will provide technical information on a Procurement Data Sheet Format (attachment B). Once the initial draft of the Procurement Data Sheet is completed, the third part of the project number will change to a letter "B".

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(c) NWAC will route copies of the Procurement Data Sheets to all members of the METCAL Steering Committee for review and comment. Committee members will respond to NWAC in writing within 30 days, with a copy to NAVAIRHQ (AIR-417). NWAC will work with Steering Committee members to resolve differences, and progress will be reviewed at each METCAL Steering Committee meeting.

(d) At the annual METCAL Calibration Requirements and Technical Review Meeting, completed Procurement Data Sheets will receive a final review; a procurement decision will be made; and prioritized list developed. Once a decision is made to buy a standard, the third part of the project number will change to a letter "C." NAVAIR at this time will designate the procuring activity. Procurement will take place based on available funding. If an item cannot be budgeted within 2 fiscal years due to funding constraints it will be reprioritized at the next annual review.

(e) A project number ending in the letter "A" will only be funded for 1 year; a project number will only be funded for 2 fiscal years as a letter "B" and a project number ending in the letter "C" budgeted for procurement will be funded through the life of the procurement process. A project number ending in the letter "C" not funded for 2 consecutive years will be reviewed/reprioritized.

(3) NAVAIRWARCENACDIVLKE, upon input from the SECAs and NAVAVNDEPOTOPSCEN will determine the inventory objective. The inventory objective will identify the ultimate location of each proposed acquisition. The number of items currently in use must also be determined.

NOTE: The inventory objective is the best estimate of the requirement at the time prepared. The SECAs/NAVAVNDEPOTOPSCEN may reassign ultimate location at anytime to maximize fleet readiness. NAVAIRWARCENACDIVLKE will notify NAVAIR as soon as a quantity change is known.

(4) PUSH items will be entered into STATS as PUSH requirements along with PULL requirements for the same FY.

c. Once a decision for a major acquisition is finalized, the following procurement and specification review procedure will take place.

(1) There will be three separate reviews by all members of the Steering Committee as follows:

(a) Review of the calibration standard technical/performance specification.

(b) Review of the Request For Proposal (RFP) prior to release of contracts.

(c) Review of industry comments on the specification and final RFP prior to release for competitive bidders.

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(2) The procuring activity will send the technical specification and preliminary RFP for comments to each member of the METCAL Steering Committee. Recommendations by committee members will be forwarded to NPSL or NAVAIRWARCENACDIV with a copy to NAVAIRHQ (AIR-417), within 15 days after receipt.

(3) NPSL and NAVAIRWARCENACDIV will jointly review all Steering Committee inputs to the technical specification within 45 days of receipt; review the initial RFP within 30 days of receipt; and review the final RFP (with industry comments) within 30 days of receipt.

(4) NPSL will consolidate each joint review and forward the recommendations to the procuring activity through official correspondence with a copy to NAVAIRHQ (AIR-417). NPSL will also coordinate and resolve any differences.

(5) The procuring activity will issue the updated technical specification via the Commerce Business Daily (CBD) for industry comment. Industry will respond within 45 days after CBD announcement.

(6) When the final RFP is complete and differences resolved, NPSL will notify NAVAIRHQ (AIR-417) through official correspondence.

(7) Upon receipt of NPSL's concurrence, NAVAIRHQ (AIR-417) will authorize the procuring activity to release the final RFP via the CBD for bid, and direct NAVAIRWARCENACDIVLKE to provide funding when negotiations are complete.

(8) A firm Fixed Price contract with bid sample testing will be the contract type of choice. The procuring activity will write the Bid Sample Test Plan, and based on qualifications, costs, and transportation, NAVAIRWARCENACDIV and/or NPSL (or other participating test facilities) will conduct the Bid Sample Test and write the Bid Sample Test Report.

(9) For those contracts that cannot be filled through bid sample, the procuring activity will develop the First Article Test (FAT) Plan, ensuring it meets all contract requirements. The First Article Test will be performed and First Article Test Report written by NPSL and/or NAVAIRWARCENACDIV (or other participating test facilities) based on qualifications, costs, and transportation.

(10) After the final RFP has been released, and changes or waivers to the technical/performance specification must be agreed upon by NATC and NPSL and approved by NAVAIRHQ (AIR-417).

(11) Unless otherwise approved by NAVAIRHQ (AIR-417), the initial procurement quantity for the basic year contract will be the minimum number required to perform FAT which will not exceed 5 units. If FAT is not required, the initial procurement quantity will be determined by funds available.

(12) Funding for new procurements will be provided by NAVAIRWARCENACDIVLKE when the contract is ready to be awarded, and for follow-on buys upon completion of the Delivery Orders. Funds for contract and Delivery Orders should be obligated during the first 6 months of the fiscal year.

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(13) For competitive procurement of new or replacement items without an ICP, the RFP will include an option for the contractor to write the ICP per NAVAIR 17-35TR-4 (to be included in RFP) using reference (e) standards and NAVAIR 16-1-525 GPETE. The procuring activity will determine whether the contractor or a NAVAVNDEPOTOPSCEN PDC will write the ICP based on schedule and cost.

(14) For procurements of replacement items for instruments that have ICPs, where possible a sole-source justification will be used to procure the same item, or the procurement specification will be written to ensure the existing ICP can continue to be used. ICPs will not be updated for changes in knobs, switches and appearance.

(15) The procuring activity will ensure the contractor provides the ICP on a floppy disc using the software package as specified in the contract by the procuring activity.

(16) The procuring activity will ensure the contractor provides Level 3 drawings, parts lists, and schematics for any special test fixtures/devices necessary to perform calibration per the ICP.

(17) The contractor will provide any special test fixtures/devices with each bid sample or First Article unit. Using the contractor's drawing package provided by paragraph 1 above. NPSL will manufacture the necessary quantity of special test fixture/devices for the follow-on production units.

(18) If a contractor fails to meet a contractual obligation, whether it be schedule slips or with the technical specification, the procuring activity will go through the Procuring Contracting Officer (PCO), to hold the contractor in default. The PCO will perform any negotiations or determine any considerations.

5. Funding

a. After all requirements have been entered into Standard Tracking and Reporting System, the NAVAIR METCAL Program Manager will allocate the resources to the requirements in STATS. There are no pre-set percentage allocations for any requesting activity.

b. After all the resources have been allocated, "Pull" requirements that were not funded must be revalidated and prioritized by the requesting activity and resubmitted as a new requirement the next fiscal year. NAVAIRWARCENACDIVLKE will distribute a list of unfunded requirements to the requesting activity for identification of those items to be rolled over into the next fiscal year. All requests not revalidated for the following year will be deleted from STATS.

c. Requirements are not automatically "rolled" over into the next fiscal year. All requirements must be validated annually. Items that were unfunded are resubmitted and revalidated in the same manner that new items are requested. However only the control number, part number, and CAGE need to be submitted for previously unfunded items. Items that have been cancelled must be resubmitted as new acquisitions.

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6. Designated Procurement Activities

a. NAVAIRWARCENACDIVLKE will execute the procurement of calibration standards for NAVAIR. Other procurement activities known as Procurement Support Sites (PSSs) will be assigned procurement roles by NAVAIRWARCENACDIVLKE. The goal of NAVAIR is to procure equipment at the least cost and to consolidate the acquisition as much as practical. Generally the PSS is also the same activity that performs calibration (if required) prior to shipment to user. NAVAIRWARCENACDIVLKE will distribute the proposed buy lists to each PSS no later than 30 June for the following fiscal year.

b. When assigned as a PSS, that activity will perform the following tasks:

(1) A final screen of the 30 June buy list to investigate/determine if item is still available/procurable.

(2) Investigate/determine latest equipment options, and verify options are suitable for intended application.

(3) If NCE prime standard is not available, pursue with the METCAL Cognizant Field Activity (CFA) at NPSL (Code 06201) to find a suitable alternate. If an alternate is available, ensure that the alternate is listed in the NCE and can be procured from the existing vendor. If not listed in the NCE, the CFA will request NWAC to include the alternate in the next NCE update.

(4) Contact the cognizant supply item manager or the vendor's ACO for vendor past quality/performance history on existing or previous contracts to determine if calibration will be required by a Navy calibration activity. Good quality is defined as less than a 5 percent rejection rate.

(5) For competitive buys, ensure that the contract specifies provisions for a calibration sticker and a warranty label covering a period of 1 year; warranty status reports; and option for an ICP, if required. The contract will specify direct shipment of the item from the vendor to the user for inventory and damage inspection. Poor quality history will override the requirement to ship directly to the user.

(6) For National Stock Number buys, contact the cognizant supply item manager or the ACO to determine if the item can be made available with a Calibration Sticker at no additional cost.

(a) If the item has a calibration sticker, and quality history is good, ship the item directly to the user for inventory and damage inspection; if quality history is poor, ship the item to a Navy calibration activity for calibration.

(b) If the item does not have a calibration sticker, schedule the item for calibration by a Navy calibration activity.

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(c) If no ICP is available, submit ICP requirements to NAVAVNDEPOTOPSCEN via MASTER. Verify via the vendor's calibration procedures in the technical manual that specified ancillary equipment is available at user activities. If equipment is not available, contact NPSL (Code 06201) for appropriate procedures to build fixtures. If the existing ICP requires an update, to add the instrument provide name and Part Number to MASTER. The existing ICP will not be updated where the changes are only for changes in knobs, switches and appearance.

(7) Prepare procurement data package and/or MILSTRIP requisitions.

(8) On a continuing basis, track progress of Contracts/Proposal Requests (PRs)/requisitions and enter data into STATS. It is essential that the MILSTRIP status cards be reviewed to ensure substitution items are acceptable and that the items are delivered to the user as scheduled.

(9) Be responsible for repair/replacement of items damaged in transshipment to user. Contact NAVAIRWARCENACDIVLKE if additional funds are required (submit backup data).

(10) After receipt of the 30 June buy list from NAVAIRWARCENACDIVLKE, the PSS will no later than 15 September of each FY, submit to NAVAIRWARCENACDIVLKE a Level of Effort/Statement of Work (LOE/SOW) identifying funds required to perform PSS tasks. The LOE/SOW will include

(a) projected quantity of unique competitive PRs/Contracts;

(b) projected quantity of unique MILSTRIP Requisitions;

(c) projected PSS manhours and rate to perform each task;

(d) projected total hardware dollars required for (1) and (2) above;

and

(e) projected vendor cost to develop the ICP (if required) for competitive PRs/contracts;

(11) The PSS will ensure that 90 percent of the funded items on contract or requisition are obligated during the first 12 months; that funds are 100 percent obligated within 24 months; and that funds are 95 percent expended in 36 months after date the funds are accepted by the PSS comptroller.

(12) The PSS will track requisitions and will not accept any substitute item from Supply unless they receive prior written authorization by NAVAIRWARCENACDIVLKE after CFA approval.

c. User

(1) The user will, upon receipt of an item, perform inventory and damage inspection. Problems associated with inventory, warranty, and shipping damage, will be reported to the local Supply Officer.

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(2) If the unit fails to operate upon receipt, the user will submit a Quality Deficiency Report (QDR) to the CFA per reference (b).

(3) The user will not be required to sign form DD 250, Material Inspection and Receiving Report. Production acceptance of the item will be signed by the Defense Contract Administration Services at the vendor's plant.

(4) All user activities must report receipt of calibration standards into STATS within 72 hours of receipt.

d. NAVAIRWARCENACDIVLKE is also responsible for procurement of items with NSNs; open purchase of NSN items cancelled by the supply system; and selected other equipment. NAVAIRWARCENACDIVLKE will determine the appropriate level of funding necessary to support authorized acquisition support. Occasionally the equipment requested is no longer procurable or the requested equipment is not selected through the competitive bidding process. Requesting activities that cannot accept a substitute or alternate item must indicate this on their request and provide adequate justification to facilitate preparation of a sole-source document.

7. Testing/Calibration

a. NAVAIRWARCENACDIVLKE will determine and assign an activity that has the expertise to calibrate new acquisitions.

b. Testing/Calibration for Competitive Contracts

(1) For multi-year contracts of new items, Bid Sample or FAT will be performed on 2 units separately by NAVAIRWARCENACDIV and NPSL, each performing preselected tests. The procuring activity will determine if production lot sampling is required and specify which production units are to be tested.

(a) Bid sample tests will be conducted during the solicitation source selection process.

(b) FAT, if required, will be performed after contract award.

(c) NAVAIRWARCENACDIV and/or NPSL will submit a Bid Sample Test or FAT report to the procuring activity recommending approval prior to acceptance of production units.

(d) Final FAT acceptance will be made by the procuring activity by means of formal correspondence to Defense Contract Administration Services (DCAS) to resolve any deficiencies. Once deficiencies are corrected/accepted, DCAS will sign the form DD 250 at the vendor's plant allowing the vendor to proceed into production at the approved FAT production baseline. Any changes after FAT require approval by the procuring activity via DCAS.

(e) Prior to shipment where possible, all items will have a calibration sticker.

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(f) Production acceptance will be at the vendor's plant with form DD-250 signature at origin by DCAS per contract requirements. Production units will be shipped to the user for inventory and damage inspection.

(2) For small quantity competitive PRs (P/N commercial off-the-shelf equipment or equivalent), no Bid Sample nor FAT is required. No other formal testing is required if the item was previously procured for the METCAL program. If the successful vendor is new to the METCAL program, the PSS will specify selected formal testing in the contract.

c. Testing/Calibration for NSN Buys

(1) It is the responsibility of the PSS to verify via the cognizant supply item manager that the contract does/does not provide for a calibration sticker and a 1 year warranty label.

(2) If the item does not have a calibration sticker, the PSS will contact NAVAIRWARCENACDIVLKE who will assign the item to a calibration activity for calibration. After performing calibration, the calibration activity will sign and submit the form DD 250 to DCAS and ship the item to the user for inventory and damage inspection.

(3) If the item has a calibration sticker and the rejection history (if available) is not greater than 5 percent or is not known, the item will be accepted at origin (vendor's plant) via a signed form DD 250 by DCAS, and shipped directly to the user for inventory and damage inspection.

(4) If the item has a calibration sticker but the rejection rate is greater than 5 percent, the item will be shipped to a calibration activity for calibration.

d. Calibration Activity Responsibilities

(1) Ensure equipment hardware options are installed per the contract/order.

(2) If no ICP is available at the time of receipt, contact NAVAVNDEPOTOPSCEN MASTER Program Manager for authorization/funding and prepare ICP based on vendor technical manual calibration procedures.

(3) Perform calibration.

(4) Contact the PSS and process paperwork for any warranty repair.

(5) Affix calibration sticker.

(6) Process paperwork to tranship to user.

(7) Sign form DD 250 and submit to DCAS with copy to the PSS.

(8) Generate MEASURE METER Inventory Card and ship with item.

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(9) Enter actual calibration manhours data into STATS.

(10) Enter calibration data into MEASURE.

(11) Update stats.

e. Calibration Activity Funding

(1) The designated calibration activity will be funded each FY based on projected delivery of items in STATS to be calibrated for that FY. Calibration activities will not be funded from APN-7 dollars to calibrate new standards designated for their own in-house use.

(2) The funding allocation will be based on the standard manhours to calibrate each like/same item extracted from the MEASURE data file and listed in STATS. Therefore, the dollar allocation will be determined by NAVAIRWARCENACDIVLKE based on the quantity of items to be calibrated; the standard MEASURE manhours; and the calibration activity manhour rate. If the MEASURE manhours is not listed in STATS, the designated calibration activity must estimate the manhours and enter into STATS.

(3) The calibration activity will submit a Statement of Work (SOW) to NAVAIRWARCENACDIVLKE detailing FY funding requirements for items to be calibrated as listed in STATS. The SOW will be submitted no later than 15 December. Quarterly reports will be submitted to NAVAIRWARCENACDIVLKE identifying items calibrated; items yet to be calibrated; and expenditures to date.

(4) Expenditures are only authorized as items are received for calibration.

(5) If additional funds are required (on an item by item basis) the calibration activity will substantiate the need to NAVAIRWARCENACDIVLKE for additional funds.

f. Contractors will not be used for calibration services.

8. Contractors

a. Contractor involvement in the acquisition of calibration standards must be kept to a minimum. Contractors involved in determining requirements should be kept to a minimum. Contractors that are involved may not be affiliated with any company that has in the past or is likely in the future to bid on contracts resulting from the work requirements they are involved in, or from information they have access to. This specifically includes teaming arrangement and subcontractor/prime relationships. This provision should be interpreted as rigidly as possible to avoid even the appearance of conflict of interest. The use of contractors in any capacity requires the approval of NAVAIRHQ (AIR-417).

b. Contractors are prohibited from participating in source selection or in any activity where they may have access to source selection information.

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9. Procurement Status Codes. The status of procurement must be kept accurate in STATS. The PSS will enter an estimated delivery date on all funded requirements and enter procurement status codes into STATS.

10. Justification Codes

- Code 1 - Replacement with identical item.
- Code 2 - Replacement with different item but same capability.
- Code 3 - Replacement with different item but improved capability.
- Code 4 - Required for future site activation.
- Code 5 - Required for support past site activation.
- Code 6 - Required to improve customer service. The benefits can be quantified.
- Code 7 - Required to improve customer service. The benefits cannot be quantified.
- Code 8 - Other - detailed justification required.
- Code 9 - Required to support the measurement repository (NPSL use only).

a. Codes 1-3 are self explanatory. When using these codes for replacement of equipment that is obsolete or beyond economical repair, the cognizant lab manager will request the equipment from the appropriate SECA or NAVAVNDEPOTOPSCEN. If the list of equipment results in a total loss of capability without work-arounds then a mid-year priority procurement can be requested by the SECA or NAVAVNDEPOTOPSCEN via naval message to NAVAIRHQ (AIR-417).

b. Initial Outfitting is normally accomplished with a Calibration Support Plan. However, Codes 4 and 5 can be used by requesting activities to highlight future or past requirements as a result of a site activation. When using Codes 4 or 5, identify the aircraft whose activation caused the requirements.

c. Use Justification Code 4 if the item will be required in the future to support a site activation/ship construction. Indicate date and location in "Remarks."

d. Use Justification Code 5 if the item is required for initial outfitting of a site/ship, but was never procured and is now a shortage. Indicate site and cognizant aircraft in "Remarks."

e. For situations to improve customer service that cannot be quantified, lab managers will request equipment using Justification Code 6 and describe the benefits on a separate sheet of paper. If the benefits can be quantified, use Justification Code 7 and provide the following information:

(1) Quantity of items the new equipment will calibrate each year.

(2) Number of days turn-around-time that will be reduced for each different SE part number.

(3) Number of hours the time to calibrate will be reduced for each different SE part number.

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(4) Support costs for the item requested. Include whether or not local calibration is possible and the estimated cost to pay for calibration of the new item. For example, if the new item will save 25 hours annually in other calibration costs, but itself requires the next higher lab to procure other equipment, then the savings may not justify the purchase.

f. Requests using Justification Codes 6 or 7 without a separate justification sheet will be cancelled.

g. Requests that do not fall into one of the above categories are rare. If a special request is needed, a Justification Code 8 should be used and justified on a separate sheet of paper. Specific requirements for Code 8 should also be expanded in the REMARKS.

h. Requests for equipment that will maintain or improve the measurement repository should be assigned Justification Code 9 and require approval by the Director of the NPSL.

i. Requests that do not have any of the above Justification Codes or do not contain separate justification sheets will be cancelled and/or returned for correction.

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ATTACHMENT A

CALIBRATION STANDARDS FYXX PROJECT DATA SHEET (FORMAT)

PROJECT TITLE:

NAVAIR REQUIREMENT:

FY PROJECT OBJECTIVE:

FY PRODUCTS

FY FUNDING REQUIREMENT:

FY	FUNDING	EXPECTATION	ACCOMPLISHMENT
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REMARKS:

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ATTACHMENT B
CALIBRATION STANDARD PROCUREMENT DATA SHEET FORMAT

1. Nomenclature:
2. Engineer & Cog Branch:
3. Problem:
4. Weapon System Application:
5. Description:
6. Purpose:
7. Standards Replaced:
8. Justification:
 - A. Requirements:
 - B. Benefit:
9. New Support Standards Required:
10. Candidate Model:
 - A. Is there a commercially available system?
 - B. Identify Candidate Model:
 - C. Extend of Modifications Required:
11. Deployment & Weapons Support:
 - A. Lab Level:
 - B. Inventory Objectives:
 1. LANT:
 2. PAC:
 3. Reserve:
 4. Training:
 5. NAVAVNDEPOTOPSCEN:
 - C. Phase Packages:

12. Other Inter or Intra-Service Applications:

13. Major Milestones:

- A. Preliminary Specification:
- B. Final Requirements Analysis and Specification Complete:
- C. RFP Release:
- D. Bid Samples Due:
- E. Bid Samples Tests:
- F. Award:
- G. Production Delivery:
- H. Delivery Rate:

14. ICP Workload:

15. A. Development Engineering Costs:	Funding Required					
Total	FY	FY+1	FY+2	FY+3	FY+4	FY+5

Requirement:						
Specification:						
Aqstn Cntrct Support:						
Bid Sample Testing:						
Cal Support ICP:						
Accept. Test/Support:						
Development:	_____	_____	_____	_____	_____	_____
Engineering Total:	_____	_____	_____	_____	_____	_____

B. Hardware Costs:	Funding Required					
Total	FY	FY+1	FY+2	FY+3	FY+4	FY+5
Production Units:						
Hardware Total:	_____	_____	_____	_____	_____	_____

C. Grand Total:

16. Remarks:

CALIBRATION STANDARDS EXCESS EQUIPMENT PROGRAM

1. This program ensures excess calibration standards and associated equipment that are serviceable, but no longer required by an activity, are identified and made available to other activities in the calibration program. Non-serviceable calibration standards and associated items that are damaged or BER will be surveyed per OPNAV Instruction 4790.2E and disposed of locally via the Defense Property Disposal Office. The following guidelines and procedures will be followed:

a. Navy Primary Standards Lab is designated as the Calibration Standards Excess Equipment Custodian.

b. MOCC West will publish a quarterly METCAL Excess Equipment List Measure Report Format 350 and distribute to all users, SECAs, and NAVAVNDEPOTOPSCEN.

c. Each user will review the Excess Equipment List. NSLs and NCLs labs will notify NAVAVNDEPOTOPSCEN who will coordinate with NPSL (Code 06501) via naval message of any equipment they require. FCA labs will notify their SECA who will coordinate with NPSL, and training activities will notify Naval Aviation Maintenance Training Group.

d. Excess property sent to NPSL should be identified by naval message or letter to Code 06501, prior to shipment. The following information is required:

- (1) Model Number, including all options
- (2) Nomenclature
- (3) Serial Number
- (4) National Stock Number
- (5) Status of equipment:
 - (a) operational, no repair required
 - (b) repairable

e. Equipment will be sent to NPSL marked for Code 06501, and must be removed from the activity's MEASURE inventory. The current METER card must accompany the item.

f. Upon receipt at NPSL, the items will be added to MEASURE inventory using customer activity NPSLA with subcustodian code lab code SDP06C. The items will be listed as inactive, and the scheduled lab code will be SDB unless otherwise directed by the NPSL Excess Equipment Custodian.

g. All receiving/shipping documents will be filed with the item to provide an equipment audit trail. The new METER card will also be filed for subsequent shipment with the item.

h. Items will be shipped from the warehouse in "AS IS" condition as received from user sites.

i. NPSL will retain excess equipment in storage for a period of time, at the discretion of the NPSL Excess Equipment Custodian. NPSL will dispose of the equipment via the Defense Property Disposal Office or the Navy Supply Center.

AIR SHIPMENT OF CALIBRATION STANDARDS

1. Normal air challenge procedures require justification be provided by the consignee, however, in the case of calibration standards, the shipping laboratory needs to provide justification when challenged. In order to ensure that message traffic resulting from air challenges to the shipment of calibration standards are routed to the correct action addressee, the following procedures apply:

- a. Project code ZL6 will be used when shipping calibration standards.
- b. Ensure the Transportation Control Number (TCN), used to ship the standard is constructed using the Unit Identification Code (UIC) of the Lab/TYCOM initiating the shipping vice the UIC of the shipping activity (e.g. Naval Supply Center).
- c. Ensure activity shippers booking project code ZL6 calibration material for air movement with the Naval Material Transportation Office (NAVMTO), via telephone or computer, include the following statement as required ATCM Trailer Card information: "Attn: CHALLENGE UIC ACTIVITY OF TCN."
- d. These procedures will ensure that challenge messages are sent to the shipping calibration lab/TYCOM vice the consignees. NAVMTO will send challenge messages to the shipping activity identified in the TCN when these procedures are utilized.